

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently amended) A method for a machine to perform machine-readable form analysis comprising

preliminarily assigning at least one form object as a graphic image for identification of a spatial orientation of a form during pre-recognition analysis, wherein the at least one form object assigned as a graphic image comprises a non-text image;

preliminarily creating at least one spatial orientation model of the said graphic image for identification of the spatial orientation of the form during pre-recognition analysis;

~~parsing a form image into regions;~~

determining the spatial orientation of ~~each region of the parsed~~ form image, comprising:

(a) detecting on the form image at least one of said graphic images for identification of the spatial orientation of the form;

(b) determining the spatial orientation of the form image based on a comparison of the detected graphic image with the spatial orientation model;

(c) rotating the form image by 90°; and repeating step (b), in case of said comparison between the detected graphic image and the spatial orientation model yielding a match that is below a predetermined level.

2. (Withdrawn) A method for a machine to perform machine-readable form pre-recognition analysis comprising

preliminarily assigning at least one graphic image in a form for identification of form type,

preliminarily creating at least one model of the said graphic image for identification of the form type,

parsing a form image into regions,

determining an image form type for the form image, comprising: detecting on the form image at least one of said graphic images for identification of the form type,

(c) performing a primary identification of the form image type based on a comparison of the detected graphic image with the said model, and

(d) performing a profound analysis using a supplementary data said-primary identification results in multiple possibilities for the form image type.

3. (Previously presented) The method as recited in claim 1, wherein determining the spatial orientation comprises setting up and examining hypotheses and corresponding matching reliability estimations.

4. (Withdrawn) The method as recited in claim 2, wherein determining the form image type comprises setting up and examining hypotheses and corresponding matching reliability estimations.

5. (Withdrawn) The method as recited in claim 2, wherein determining the form image type is performed using a minimum possible set of objects, defining the form type.

6. (Cancelled)

7. (Previously presented) The method as recited in claim 1, wherein the at least one form object assigned as a graphic image comprises a text image.

8. (Previously presented) The method as recited in claim 7, wherein text in said text image is additionally recognized as a first step in the pre-recognition analysis.

9. (Previously presented) The method as recited in claim 8, wherein the recognized text is used as supplementary data in a form type definition process.

10. (Cancelled)

11. (Previously presented) The method as recited in claims 1, wherein assigning comprises assigning a group of graphic images.

12. (Currently amended) The method as recited in ~~claim 6~~ claim 1, wherein at least one form object comprises an element of empty region type.

13. (Currently amended) The method as recited in ~~claim 6~~ claim 1, wherein at least one form object is of dividing line type.

14. (Withdrawn) The method as recited in claim 2, wherein the profound analysis comprises at least

- assigning to the form at least one supplementary form element,
- creating a profound analysis model using the said model of the said graphic image plus at least one said supplementary assigned form element; and
- performing a profound analysis of the form image using the said profound analysis model.

15. (Cancelled)

16. (Previously presented) The method as recited in claims 11, wherein the entire group of graphic images is used for determining the spatial orientation.

17. (Cancelled)

18. (Previously presented) The method as recited in claim 1, wherein the said spatial orientation model is stored in a form model description.

19. (Cancelled)

20. (Previously presented) The method as recited in claim 1, wherein the form image is parsed into the regions containing at least one of text objects images, data input fields, special reference points, and lines.